A study of mediating effect of trust on customer satisfaction and customer loyalty relationship in Malaysian rural tourism

Zahir Osman^{1*} and Ilham Sentosa¹

Received: 14/09/2012 Accepted: 07/03/2013

¹ Limkokwing University of Creative Technology, Malaysia

* Corresponding author; e-mail: zahiro@limkokwing.edu.my

Abstract

The main purpose of this study is to develop a mediating effect understanding of trust on service customer satisfaction and customer loyalty relationship in Malaysia rural tourism. The Structural Equation Model (SEM) used to analyze the casual relationships among customer satisfaction, customer trust and customer loyalty. The model was developed and later tested by adopting the Partial Least Square (PLS) procedure on data collected from a survey that yielded 295 usable questionnaires. The findings showed that customer satisfaction enhances trust in Malaysia rural tourism. It was also revealed that trust partially mediates the relationship between customer satisfaction and customer loyalty. In future more research needs to be carried out to explore the role of trust in Malaysia rural tourism industry. It is important to do the study utilizing experimental design by capturing longitudinal data in Malaysia rural tourism industry using robust measures. The findings imply that the relationship between trust and profitability may dwell in trust's influence on customer loyalty, and that trust plays a crucial function within the Malaysia rural tourism industry. This research is one of the first known attempts to use PLS to test a mediation effect.

© 2013 International University College. All rights reserved

Keywords: Rural tourism, customer satisfaction, trust, customer loyalty

Citation: Osman, Z., I. Sentosa (2013) A study of mediating effect of trust on customer satisfaction and customer loyalty relationship in Malaysian rural tourism. *European Journal of Tourism Research* 6(2), pp. 192-206

Introduction

In today's global economy, tourism is one of the fastest growing sectors. A strong growth catalyst that can generate higher multiplier effect, tourism plays a very important role in the economy and stimulates the growth of other economy. In Malaysia, tourism is the third largest industry, in terms of foreign exchange earnings, after manufacturing and palm oil sector. Tourism sector contributes about 7.9%

to the GDP of Malaysia, suggesting that the industry, which is considered still new, but yet, has offered so much good potential for further and future growth. In 2011, the global tourism and travel sector has generated USD 7 trillion in economic activities and this will offer more than 260 million jobs opportunity (Goeldner & Ritchie, 2003). In 2011, Malaysia had been visited by more than 24.7 million tourists which an increase of 0.4% from 2010 which was

about 24.6 million tourists. (Tourism Malaysia Annual Report, 2011). In tourism industry, tourists are very important to ensure the customer will visit the tourist attraction again, after they have experience it the first time. The concept of loyalty can be defined that a customer would come back or continuously to utilize the same product or service from the same organization, make business referrals, and directly, or even indirectly, offering strong word-of-mouth references and publicity (Bowen & Shoemaker, 1998). Customers, who are loyal, are not easily influenced or swayed by price enticement from their competitors, and they often buy more, compared to those who are not so loyal (Baldinger & Robinson, 1996). Conversely, service providers must not feel comfortable because not all retained customers are satisfied ones and similarly not all of them can be always retained. There are many factors for such manner of loyal customers. There are customers who will remain loyal because the existing of high switching barriers, or the lack, of real substitutes, whereas other customers continue to be loyal since they are satisfied with the service offered. Some customers may remain loyal due to high switching barriers, or the lack of real substitutes, while others continue to be loyal because they are satisfied with the services provided. The purpose of this paper to show the link between customer satisfaction and trust in customer loyalty in Malaysian rural tourism market to test the conceptual research model that connect, customer satisfaction, trust and customer loyalty.

Literature Review

Customer Satisfaction

Customer satisfaction is one the most areas being researched in many tourism studies due to its importance in determining the success and the continued existence of the tourism business (Gursoy, Mc Cleary and Lepsito, 2007). Customer satisfaction conceptually has been defined as feeling of the post utilization that the consumers experience from their purchase (Westbrook and Oliver, 1991; Um *et al.*, 2006). Opposite to cognitive focus of perceptions, customer satisfaction is deemed as affective response to a products or services (Yuan and Jang, 2008). A consumer is deemed to be satisfied upon the experience weighted

sum total produce a feeling of enjoyment when compared with the expectation (Choi and Chu, 2001). In tourism studies, customer satisfaction is the visitor's state of emotion after they experiencing their tour (Baker and Crompton, 2000; Sanchez *et al.*, 2006). Destination holiday's customer satisfaction is the extent of overall enjoyment that the tourists feel, the result that the tour experience able to fulfill the tourists' desires, expectation, needs and wants from the tour (Chen and Tsai, 2007). Taylor *et.al.*, (2004) pointed out that customer satisfaction has a direct influence on customer loyalty. Kotler, (2008) describes customer satisfaction is the feeling of happiness or unhappiness as a result of comparing the perceived performance of services or products with the expected performance. If the perceived performance does not meet the expected performance, then the customer will feel disappointed or dissatisfied. Homburg *et al.*, (2006) suggested that customer satisfaction has been a crucial issue in marketing field in the past decades since satisfied customers are able to offer to the company such as customer loyalty and continuous profitability.

Trust

In the current study, trust has been defined as a tourists' willingness to rely on tourist attraction operator's ability to deliver what has been promised and meet or exceed the expectation of the tourists which has been built around of the knowledge about the tourist attraction. A trusted tourist attraction has a strong advantage over the other tourist attraction which is an alternative in the tourist's decision making process. In tourism studies, Loureiro and Gonzalez (2008) showed empirical evidence that tourists' trust has a strong influence on their loyalty toward rural lodging.

According to Lau & Lee (1999) if one party has trust in another party, it will produce positive behavioral intentions towards the other party. Trust has influence on credibility and credibility will eventually has impact on the customer's long-term orientation by decreasing the risk perception linked to the opportunistic behavior of the business (Erdem *et al.*, 2002; Ganesan, 1994). To be specific, trust minimizes customer's uncertainty feelings where

Figure 1. Theoretical framework

customer feels at risk because they know that they can rely on the service provider (Chaudhuri and Holbrook, 2001). San Martin Gutierrez (2000) describes trust the emotional security that made one party to think that another party is responsible and concern about it. This gives the understanding that the former is ready to be at risk to the actions of the second party regardless its ability to control the later.

Customer loyalty

The concept of customer loyalty has been researched for the past decades in business industries. Loyalty is a commitment of current customer in respect to a particular store, brand and service provider, when there are other alternatives that the current customer can choose for (Shankar, Smith & Rangaswamy, 2003). It forms positive attitudes by producing repetitive purchasing behavior from time to time. There is a strong connection customer loyalty and firm's profit. Zeithaml, (2000), states that previous researches look at customer loyalty as being either attitudinal or behavioral. The behavioral perspective the customer is loyal as long as they continue to purchase and use the goods or services (Woodside *et al.*, 1989; Parasuraman *et al.*, 1988; Zeithaml *et al.*, 1996). Reicheld (2003) suggested that the

most superior evidence of the customer loyalty is the proportion amount in percentage of current customers who are having lots of enthusiasm to recommend a specific good or service to their friends. Whereas, the attitudinal perspective, the current customers have a feeling of belongings to a specific product or service or commitment of the current customers towards a specific good or service. Baumann, Burton & Elliot, (2005) found that Day (1969) had introduced the concept of customer loyalty covering both behavioral and attitudinal dimensions forty years ago.

Research model and hypotheses

Research model

Tourist attraction operators are keen to know how customer satisfaction can lead to customer trust and, eventually, create customer loyalty for the tourists. The research applies the research model by a few authors mostly Parasuraman *et al.* (1985), Bitner & Zeithaml (2003) and Morgan & Hunt (1994). The conceptual model of this study is illustrated in Figure 1.

Hypotheses

Relationship between customer satisfaction and customer loyalty

The survival and sustainability of any business organization is largely depends on the customer satisfaction and customer loyalty. Faullant, Matzler, & Ller (2008) in their study on 6172 ski resort customers in Australia have found that customer satisfaction is positively and significantly correlated to customer loyalty. Pantouvakis & Lymperopoulos (2008) have done the study on 388 ferry passengers in Greece and revealed that customer satisfaction has great impact on customer loyalty and positively and significantly correlated with customer loyalty. Akhbar & Parvez (2009) in their study on 302 telecommunication customers in Bangladesh have found that customer satisfaction is significantly and positively related to customer. Hume & Mort (2010) conducted a study on 250 performing arts members and audience and have found that customer satisfaction very much has impact on customer loyalty and positively and significantly related. Chen & Lee (2008) in their study on 261 non Vessel Owners and shippers in Taiwan's International Logistic Provider industry has revealed that customer satisfaction is very critical to customer loyalty and both are positively and significant correlated. Rizan (2010) studied on customer satisfaction and customer loyalty relationship on 160 passengers in airline industry in Indonesia and have found that customer satisfaction has a great impact on customer loyalty and positively and significantly influence customer loyalty. The same result found by Liang (2008) in her study on 308 Hotel guests in United States where she found that customer satisfaction is the determining factor and positively and significant correlated to customer loyalty. Kim (2011) in the study on 3709 hotel guests in Midwestern resort in the United States has found that customer satisfaction has play important role and has significant effect on customer loyalty. Reyes (2012) in her study on 400 tourists in Spain has found that customer satisfaction has a strong influence and significant impact in determining the level of customer loyalty among tourists.

Therefore, we hypothesize:

H1: There is a positive relationship between customer satisfaction and customer loyalty

Relationship between customer satisfaction and trust

Trust is known as future attitude where a state of mind will go beyond the previous experience. There are numbers of researches have been done and advocated that customer satisfaction is the critical factor in developing customer trust. Kantsperger & Huntz (2010) in their study on 357 E-services customer in Malaysia and Qatar E-Commerce have revealed that customer satisfaction is the main antecedent to trust and positively and significantly correlated. Yeh & Li (2001) in their study have also found a similar result where in their study on 212 m-commerce customers in Taiwan revealed that customer satisfaction has a stronger impact on trust and significantly and positively correlated. Ribbink, Riel & Semeijin (2005) in their study on 350 online customers in Europe e-commerce industry have found that customer satisfaction has greater influence on trust and significantly and positively related to trust. Sahadev & Purani (2008) in their study on 184 University students online customer in e-commerce (India) have found that customer satisfaction has a strong influence on trust and they significantly and positively correlated. Edwin, Nic & Christo (2011) studied the B2B financial services in South Africa concur the above findings where they found that customer satisfaction has a positive and significant influence on trust. Yeh & Li (2009), in their study on m-commerce customer in Taiwan found that satisfaction has a positive and significant influence on trust. Jose (2011) found in his study on internet user in internet industry in Spain that customer satisfaction has a significant and positive influence on customer trust. Edwin *et al.* (2011) in their study on financial service customer in financial service industry in South Africa found that customer satisfaction is a strong predictor on customer trust where the relationship is significantly and positive correlated. In view of that we hypothesize:

H2: There is a positive relationship between customer satisfaction and trust

Relationship between trust and customer loyalty

There are quite a number of researches have been done and found the importance of trust as

an antecedent to customer loyalty. Akhbar & Parvez (2009) in their study on 302 telecommunication customers in Bangladesh telecommunication industry have revealed that trust has a strong impact and significantly, and positively, correlated with customer loyalty. Liang (2008) has done a research on 308 Hotel guests in hotel industry in United States has revealed the importance of trust in determining customer loyalty in hotel industry. She found there is a strong impact of trust on customer loyalty where trust is significantly and positively correlated. Luarn & Lin (2003) has revealed the importance of trust as an antecedent to customer loyalty in their study on 180 Tourists in Taiwan tourism industry. They found that trust has a stronger relationship after commitment and customer satisfaction. The relationship is also positively and significantly correlated. Horppu et. al (2008) in their study on 867 Website magazine consumer in Finland have found that trust on the web site level are determinant of web site loyalty where the relationship is positively and significantly correlated. Kassim & Abdullah (2010) in their study on 357 E-services customer in Malaysia and Qatar e-commerce industry have revealed that trust has a strong influence on customer loyalty where it is positively and significantly correlated. Ribbink Riel, Veronica Liljander and Streukens, (2004) in their study on 350 online customers in Europe e-commerce industry have also found the importance and strong impact of trust on customer loyalty. The relationship also shows the positive and significant relationship of both. Therefore, we hypothesize:

H3: There is a positive relationship between trust and customer loyalty

Relationship between customer satisfaction,

trust and customer loyalty
Many studies had indicated that customer satisfaction is antecedent to the broader idea of customer trust (Gotlieb *et al.*, 1994; Buttle, 1996; Zeithaml and Bitner, 2008; Lee *et al.*, 2000). Eisingerich and Bell, (2007) found that customer satisfaction had a significant effect on customer loyalty and trust, and trust had a significant effect on customer loyalty. However, the causal relationship between customer satisfaction and trust seems not to be very clear in the literature. Zanzo *et al.* (2003) found that, satisfaction acts as an antecedent to trust, and trust as an antecedent to customer loyalty. Moreover, trust directly affects loyalty as well. In view of that, we hypothesize:

H4: There is a positive indirect relationship among customer satisfaction, trust and customer loyalty

Methodology

Survey instrument

A total of 15 observed variables constitute the measurement of exogenous independent variable of customer satisfaction of 5 items. The endogenous of trust consists of 5 items, and customer loyalty – 5 items. The scaling applied in this study is the 5-point Likert scale of 1-strongly agree, 2-agree, 3-neutral, 4-disagree and 5-strongly disagree. The demographics variables questioned are gender, age, status, place of origin, race, occupation, annual income, and education background of the respondents.

Sample

Local and foreign tourists, who have visited the rural tourism spot in Malaysia at least once, were the main respondents. A total of 410 rural tourism spot tourists were requested to complete a questionnaire that contained

Table 1. Operationalization of variables

Customer satisfaction	Customers' evaluation of a product or service in terms of whether that product or service has met their needs and expectations.	Bitner & Zeithaml (2003)
Customer trust	Actual customer's belief in receiving the service promised by the provider and a demonstration of the confidence of the customer in exchange of partner reliability and integrity	Morgan & Hunt (1994)
Customer loyalty	The mind-set of the customers who hold favorable attitudes toward a company, commit to repurchase the company's product/service, and recommend the product/service to others	Zeithaml <i>et al.</i> (1996)

measures of the construct. The questionnaires were distributed to the respondents in Klang Valley, Malaysia through email and on the spot by using simple random sampling technique. Out of the 410 distributed questionnaires, 329 were returned. This made up the response rate of 80.24%. In view of that, the rate of response is sufficient for SEM analysis. The Mahalanobis distance was determined based on a total of 31 observed variables. The criterion of $p < 0.01$ and critical value of $\chi^2 = 86.40$ is applied. The test conducted identified 34 cases with Mahalanobis value (D^2) above 86.40. The Mahalanobis analysis successfully identifies the multivariate outliers which were deleted permanently, leaving 295 datasets to be used for further analysis.

Data analysis

Partial Least Squares (PLS) (Chin, 1998a, b, 2001) was adopted to assess the models. PLS is a second generation structural equation modeling (SEM) technique developed by Wold (1982). It works fine with structural equation models that have latent variables and a series of cause-and-effect relationships (Gustafsson and Johnson, 2004). PLS has three main advantages over other SEM techniques that make it suitable to this study. First, in PLS, constructs may be gauged by only one item whereas in covariance-based techniques, minimum of four questions per construct are required. Second, in many marketing studies, data tend to be distributed non-normally (it is noted that mostly ten-item scales were employed to reduce a negative impact of non-normality), and PLS does not need any normality assumptions and handles non-normal distributions relatively well. Third, PLS accounts for measurement error and should offer more accurate estimates of interaction effects such as mediation (Chin, 1998a). PLS provides challenges and opportunities for the mediation effects study.

However, it is particularly suitable to the study of mediation. Mediation effects are the outcome of two relationships; between the independent variable and the mediator, and between the mediator and the dependent variable. The product of two normally distributed variables is always skewed (Bollen and Stine, 1990, Lockwood and Mackinnon, 1998), but PLS

does not depend on normality assumptions. PLS adopts bootstrapping to assess the significance of relationships so it works better with non-normal data (Efron, 1988). Therefore, PLS may do well in assessing mediation effects. On the other hand, there are no official rules providing instructions on how to use PLS to assess mediation. There are, however, general suggestions for evaluating mediation that can be classified into three general approaches (Mackinnon *et al.*, 2002). The first method, known as the causal steps approach, is based on the works of Judd and Kenny (1981) and Baron and Kenny (1986). Investigation on the ISI Web of Science citation database indicates that Baron and Kenny's paper has been cited over 8,120 times that enhance credibility to this method. The second approach, known as the difference in coefficients method, evaluates regression coefficients prior and after the mediating variable is incorporated. The third technique is drawn as the product of coefficients comprising paths in a path model approach. The first approach utilizes regression analysis.

The last two approaches utilize the goodness-of-fit indices provided by Effect of organizational reputation 1433 covariance-based SEM. SEM technique is preferred for mediation analysis (Frazier *et al.*, 2004). PLS works well with the causal steps approach that depends on regression analysis. The path coefficients, created by PLS, give a sign of relationships and can be utilized similarly to the usual regression coefficients (Gefen *et al.*, 2000). Firstly, a direct linkage must be established between the independent and dependent variable to ensure there is a relationship to be mediated. Secondly, a direct relationship must be established between the independent and mediator variable. Thirdly, the mediator must be shown to be related to the dependent variable. Finally, the relationship between the independent and dependent variables must reduce significantly when the mediator is added. The relationships between the independent and dependent variables as well as the independent and mediating variables should be theoretically based and supported by the previous literature.

These four steps will be emulated in this study using PLS. To evaluate the indirect effects significance, it is important to explicitly model the two paths both directed in and out of the mediating construct. It is suggested that for evaluating the significance of indirect paths in a PLS structural model, the application of the same bootstrapping procedure as done elsewhere with path analysis. The two step bootstrapping technique for testing mediation is as follows:

1. Apply the specific model in question with both direct and indirect paths included and execute N bootstrap re-sampling and explicitly compute the product of direct paths that form the indirect path being assessed.
2. Approximate the significance adopting either percentile bootstrap or bias corrected bootstrap which has been shown to have the least biased confidence intervals, greatest power to detect nonzero effects and contrasts, and the most accurate overall Type I error (Williams and MacKinnon 2008).

Therefore, for the purpose of assessing the significance of the mediating effect based on the above procedure, the PROCESS application developed by Hayes, A. F. (2012) was adopted. The application was embedded in SPSS ver. 18

Results

Profiles of respondents

The profile of the individual involved in this study shows that most of the respondents are

male (54.2%) and female (45.8%) with the age majority of 21-30 years old (42.7%), <20 years old (3.1%), 31-40 years old (28.8%), 41-50 years old (10.2%) and >50 years old is 15.3%. The number of married and single individuals about the same with married individuals (48.8%), single (48.1%), divorced (2.4%) and Widowed (0.7%). Most of the individual in this study are local (88.8%), Asia (5.1%), Africa (4.1%), Middle East (1.7%) and Europe (0.3%). Race of individual participate in this study are mostly Malay (77.3%), Chinese (5.8%), Indian (4.7%) and others (12.2%). Most of the individual in this study work in government sector (70.8%), own business (2.7%), private sector (17.5%), retired (0.3%) and others (8.5%). Most of the respondents their income is less than RM20000 (31.5%), RM21000-RM30000 (16.6%), RM31000-RM40000 (18.3%), RM41000-RM50000 (8.1%), RM51000-RM60000 (8.1%), RM61000-RM70000 (4.7%) and more than RM70000 (12.5%).

Construct validity, dimensionality and reliability

In order to evaluate the construct's validity, dimensionality and reliability, all constructs were analyzed. For each construct, the average variance extracted (AVE), the AVE square root, composite reliability; R-Square, Cronbach's Alpha and communality were computed. Construct validity was acquired by first evaluating Cronbach's Alpha for individual construct. The results are shown in Table 2. All constructs achieved a higher Cronbach's Alpha than recommended 0.7 (Hair *et al.*, 2005). After

Table 2. Construct reliability and validity

	AVE	AVE Square root	CR	R-Square	Cronbach's alpha	Communality
LOY	0.736	0.858	0.933	0.618	0.910	0.736
SAT	0.668	0.817	0.910	0.00	0.876	0.668
TRU	0.683	0.826	0.915	0.539	0.884	0.683

Table 3. Variable correlation matrix based on AVE Square root

	LOY	SAT	TRU
LOY	0.858		
SAT	0.707	0.817	
TRU	0.752	0.735	0.826

Table 4. Direct effect model

	Path coefficient	t-value
SAT – LOY	0.707	11.672
SAT – TRU	0.734	12.338

Note: t-values are significant at $p < 0.000$

Table 5. Indirect effect model

	Path coefficient	t-value	f^2	Q^2
SAT – LOY	0.334	2.745	0.131	
SAT – TRU	0.734	13.137	1.169	0.824
TRU – LOY	0.508	4.300	1.309	

Note: t-values are significant at $p < 0.000$

Table 6. Indirect effect significance test

Indirect	Effect	Boot SE	Boot LLCI	Boot ULCI
Trust	0.417	0.054	0.314	0.527

that, all constructs were evaluated and processed within the model by using PLS evaluation to get each construct's AVE, composite reliability and communality. All constructs acquired greater than the minimum required for each parameter. (Chin 19998; Stan & Saporta, 2005).

After that, based on Geffen & Staub (2005), individual construct had its AVE square root extracted to evaluate construct dimensionality. The results obtained, used as a reference when the entire construct correlated and each correlation weight within the two constructs, has to be smaller than the AVE square root as shown in Table 3. All correlations achieved a value lower than AVE's square root and all parameters (AVE, composite reliability, Cronbach's Alpha, and communality) achieved satisfactory indices. The results are revealed in Table 2.

Model analysis

Firstly, the first model was presented with direct path from satisfaction to trust and satisfaction to loyalty. Both links were significant at the 0.000 level with the path coefficients of 0.707 and 0.734 respectively. At this point no indirect effect was hypothesized or evaluated (Table 4). Then, the second model was presented with trust plays a mediating role between satisfaction and loyalty (refer to Table 5). The two distinct models were made based on Barron and Kenny (1986) four-step technique to assess the mediating effect. The two models had:

- 1) a direct path from satisfaction to trust
- 2) a direct path from satisfaction to loyalty
- 3) a direct path from trust to loyalty
- 4) a direct path from satisfaction to loyalty, and an indirect path from satisfaction to trust and then from trust to loyalty.

Since PLS makes no distributional assumptions traditional parametric significance, testing is not suitable. Thus, t-statistics are computed by the bootstrap resampling procedure (500 resamples), resulting in $t > 2.74$ and, therefore, $p < 0.000$ (one tailed) for all the relationships in the final estimated model revealed in Table 5.

Mediation is said to be existent when the direct path coefficient between the independent variable and dependent variable is decreases when the indirect path through the mediator is established in the model. The direct path is assessed without the intervention of mediator and with the intervention of mediator. The direct path standardized beta was 0.707 and change to 0.334 after the introduction of trust as a mediator. The amount of the decrease of the relationship between satisfaction and loyalty accounted by the mediator was 0.373 which represent 52.76% of the direct effect.

The mediation effect significance was measured by using PROCESS by Hayes (2012) with the application of bootstrapping technique where the specific model in question with both, direct and indirect, paths included, and execute N bootstrap re-sampling and explicitly compute the product of direct paths that form the indirect path being assessed.

Figure 2. Direct path coefficient and R^2

Figure 3. Indirect path coefficient and R^2

Then, the significance of the mediating effect can be ascertained by observing either percentile bootstrap or bias corrected bootstrap which has been shown to have the least biased confidence intervals, greatest power to detect

nonzero effects and contrasts, and the most accurate overall Type I error (Williams and MacKinnon, 2008). The result extracted from PROCESS shows that the indirect effect of satisfaction to loyalty with the present of trust

Table 7. Hypotheses result

	Hypothesizes Relationship	Path coefficient	p-value	Conclusion
H1	There is a positive relationship between customer satisfaction and customer loyalty	0.707	0.00	Supported
H2	There is a positive relationship between customer satisfaction and trust	0.734	0.00	Supported
H3	There is a positive relationship between customer trust and customer loyalty	0.508	0.00	Supported
H4	There is a positive indirect relationship between customer satisfaction and customer loyalty via trust	0.417	0.00	Supported

as a mediating factor is significant at $p < .000$ where the lower level confidence level (LLCL) is 0.314 and upper level confidence level (ULCL) is 0.527 (Table 6). The indirect effect is significantly different from zero at $p < .000$ (two tailed). With 95% confidence that, because zero is *not* within this interval, zero is not likely a value for the indirect effect of satisfaction on loyalty. The true indirect effect is estimated lies between 0.314 and 0.527. Therefore, the indirect path satisfaction to trust and from trust to loyalty was $0.734 \times 0.508 = 0.373$. The confidence interval level provided by PROSESS was between 0.314 and 0.527, $p < .000$. This shows that the partial mediation effect present. Therefore, all the hypotheses are supported (Table 7).

The paths were analyzed in order to assess the effect size (f^2) to differentiate the path that contribute in explaining the dependent variable to which they are attached. Chin (1998b) explains that the R^2 for each latent variable (LV) can be a opening point when evaluating PLS for the structured model, since explanation of the PLS is similar to that of a traditional regression. The author also suggests that the change in the R^2 can be investigated to see whether the impact of a specific independent LV on a dependent LV is extensive. Following Chin's (1998b) recommendation, effect size can be calculated as:

$$f^2 = \frac{R^2_{\text{included}} - R^2_{\text{excluded}}}{1 - R^2_{\text{included}}}$$

where R^2 included and R^2 excluded are the R^2 provided on the dependent LV, when the predictor LV is used or omitted from the structural equation, respectively. The f^2 of 0.02,

0.15 and 0.35 can be translated as a predictor LV having a small, medium, or large effect at the structural level (Table 5).

The Q-square (Q^2) for the structural model which imply the predictive relevance of the model is acceptable which is 0.734 (Table 5). Q-square for the structural model is to gauge how fit the observations produced by the model and to assess its parameters. If the value of $Q^2 > 0$, it signifies that the model has predictive relevance; on the other hand, if the value of $Q^2 < 0$, it signifies that the model is having predictive relevance deficiency. This shows that the ability of the Partial Least Model to demonstrate the model is 82.4%. Therefore, only 17.6% of other factors are not observable to describe this effect. Therefore, it can be concluded that the model can be used appropriately. The predictive measure for the block becomes:

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) \dots (1 - R_p^2)$$

Discussion and conclusion

Research conclusions

The main purpose of this research is to establish an understanding of the mediating effect of customer trust on customer satisfaction and customer loyalty relationship in Malaysia rural tourism industry. This research aims to develop a probable causal relationship between the variables, which are customer satisfaction, trust and customer loyalty. Based on this, a review from the previous study in the area of customer satisfaction, trust and customer loyalty was performed. From the initial findings of academic studies, the model was constructed and it's found that customer satisfaction has a positive and significant direct effect on trust. Also from the same model, it

was found that customer satisfaction has a positive and significant direct effect on customer loyalty. Then, the mediating relationship was introduced in the model where trust was introduced as a mediator in customer satisfaction and customer loyalty relationship. Theoretically, it is not easy to justify the superiority of any model, so empirical testing was performed. This study proposed a model to empirically test and confirm that there are positive direct relationships between customer satisfaction, trust and customer loyalty. In order to achieve this objective, the PLS technique data analysis was adopted. There are a few points that need to be observed. Firstly, the most accepted relationship between customer satisfaction and trust is authenticated. The path coefficient of direct relationship between the customer satisfaction and trust is 0.734 and is significant. Secondly, the most accepted theory that link customer satisfaction and customer loyalty also well supported with the path coefficient of direct relationship between customer satisfaction and customer loyalty is 0.707 and is significant. Thirdly, this research is to empirically analyze the proposed mediating effect of customer satisfaction on service quality and trust relationship. The amount of the relationship between customer satisfaction and customer loyalty accounted by the mediator was $(0.707 \times 0.334) = 0.236$, which represents 52.76 percent of the direct effect. In view of that, it is concluded that trust is partially mediates the relationship between customer satisfaction and customer loyalty. Based on the above findings, it is concluded that trust plays a role as a mediator and has mediating effect on customer satisfaction and customer loyalty relationship in Malaysia rural tourism industry.

Practical implications

The practical implications that can be drawn are to improve customer satisfaction of rural tourism spots. As the research revealed, customer satisfaction has a direct effect on customer loyalty mediated by tourist trust, and then on tourist loyalty. Secondly, rural tourism spots should put in place good customer relationship with tourists, execute customer relationship management and create tourist's trust. The research demonstrates that rural tourist trust leads to customer loyalty. Thirdly, tourist trust should be paid attention to by rural

tourism operators. The research signifies that rural tourist trust is the most indirect and important antecedent to loyalty. Trusted rural tourists not only will revisit and be low probability to look alternatives, but also have word-of-mouth recommendations, which means that satisfied customers are absolutely loyal to rural tourist areas and helpful with new market development.

Research limitations and directions for future research

As an exploratory study, this paper instituted the customer satisfaction on rural tourist loyalty influential mechanism model, and performed in the scientific and systemic empirical research, and made firm conclusions, while it has some shortcomings due to research funding and ability. In view of that, some future directions should be carried out. Firstly, with regards to research samples, this study only chose rural tourist in Klang Valley areas as respondents. And this study lacks discussions on that whether the geographical factors, as a mediating variable, will have impact on rural tourist loyalty. Secondly, on the sampling time and space, they study only acquired the latitudinal data belonging to static research. Nevertheless, if we desire to institute the causal relationships between variables, it's better to make a follow-up examination to collect longitudinal data to analyses. In view of the above limitations, on one hand, further research may be performed on cleansing our scale to get better internal validity. On the other hand, the survey should be done on different types and timings to obtain the generic model to improve the external validity.

References

- Akbar, M.M and Parvez, N. (2009). Impact of service quality, trust and customer satisfaction on customer loyalty. *ABAC Journal* 29(1), 24-38.
- Aydin, S., Özer, G. and Arasil, Ö. (2005). Customer loyalty and the effect of switching costs as a moderator variable: A case in the Turkish mobile phone market. *Marketing Intelligence & Planning*, 23(1), 89-103.
- Baker, D. and Crompton, L. (2000). Quality, satisfaction and behavioral intentions.

- Annals of Tourism Research* 27(3), 758-804.
- Baldinger, A. & Robinson, J. (1996). Brand loyalty: the link between attitude and behavior. *Journal of Advertising Research* 2(1), 84-97.
- Baron, R.M. and Kenny, D.A. (1986). The moderator mediator variable distinction in social psychological research – conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology* 51(6), 1173-1182.
- Baumann, C., Burton, S. and Elliott, G. (2005). Determinants of customer loyalty and share of wallet in retail banking. *Journal of Financial Services Marketing* 9(3), 231-248.
- Bollen, K.A. and Stine, R. (1990). Direct and indirect effects: classical and bootstrap estimates of variability. *Sociological Methodology* 20, 115-140.
- Bowen, J. and Shoemaker, S. (1998). Loyalty: a strategic commitment. *Cornell and Restaurant and Administration Quarterly* 39(1), 12–25.
- Buttle, F. (1996). SERVQUAL: review, critique, research agenda. *European Journal of Marketing* 30(1), 8-32.
- Castaneda, J. (2011). Relationship between customer satisfaction and loyalty on the Internet. *Journal of Business & Psychology* 26(3), 371- 383.
- Chaudhuri, A. and Holbrook, M.B. (2001). The chain effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing* 65, 81-93.
- Chen, C. and Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions. *Tourism Management* 28(4), 1115-1122.
- Chin W.W. (1998a). Issues and opinion on structural equation modeling. *MIS Quarterly* 22 (1), VII-XVI.
- Chin, W.W. (1998b). The Partial Least Squares approach for Structural Equation Modeling, in Marcoulides, G.A. (Ed.). *Modern methods for business research*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Chin, W.W. (2001) PLS-Graph user's guide. Version 3.0, *Soft Modeling Inc.*
- Choi, T. and Chu, R. (2001). Determining of hotel guests' satisfaction and repeat patronage in the Hong Kong hotel industry. *International Journal of Hospitality Management*, 20, 277-297.
- Cronin Jr., J.J., Brady, M.K. and Hult, G.T.M. (2000). Assessing the effects of quality, value and Customer satisfaction on customer behavioural intentions in service environments. *Journal of Retailing* 76,, 193-218.
- Liang, D. (2008). The determining factors of customer loyalty for luxury hotels in US. *The Journal of International Management Studies* 3(2), 167-175.
- Day, G. (1969). A two-dimensional concept of brand loyalty. *Journal of Advertising Research* 9(3), 29–35.
- Efron, B. (1988). Bootstrap confidence-intervals – good or bad. *Psychological Bulletin* 104 (2), 293-6.
- Eisingerich, A. B. and Bell, S. J. (2007). Maintaining customer relationships in high credence services. *Journal of Services Marketing* 21, 253-262.
- Erdem, T., Louviere, J. and Swait, J. (2002). The impact of brand credibility on consumer price sensitivity. *International Journal of Research in Marketing* 19, 1-19.
- Frazier, P.A., Tix, A.P. and Barron, K.E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology* 51(1), 115-134.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58, 1-19.
- Gefen, D., Straub, D. and Boudreau, M.C. (2000). Structural equation modeling and regression: guidelines for research practice. *Communications of the Association for Information Systems* 4(7), 1-77.
- Goeldner, C.R. and Ritchie, J.R.B. (2003). *Tourism – principles, practices, philosophies*, 9th ed., Hoboken, NJ: Wiley.
- Gotlieb, J.B., Grewal, D., and Brown, S.W. (1994). Consumer satisfaction and perceived quality: complementary or divergent constructs? *Journal of Applied Psychology* 79(6), 875-85.

- Gursoy, D., McCleary, K. W. and L. R. Lepsito (2007). Propensity to complain: effects of personality and behavioral factors. *Journal of Hospitality & Tourism Research* 31(3), 358-386.
- Gustafsson, A. and Johnson, M.D. (2004). Determining attribute importance in a service satisfaction model. *Journal of Service Research* 7(2), 124-141.
- Hair, J., Black, B., Babin, Anderson, R. and Tatham, R. (2006). *Multivariate data analysis*, (6th Ed.), Upper saddle River, NJ: Prentice-Hall.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. URL: <http://www.afhayes.com/public/process2012.pdf> (Accessed on 22.5.2012)
- Helfert, G. and Gemünden, H. G. (1998). *Relationship marketing team design: A powerful predictor for relationship effectiveness*. ISBM Report # 6-1998, Institute for the Study of Business Markets, Pennsylvania State University, University Park, PA, USA.
- Homburg, C., Jensen, O., Krohmer, H. (2008). Configurations of marketing and sales: taxonomy. *Journal of Marketing* 72, 133-154.
- Horppu, M., Kuivalainen, O., Tarkiainen, A. & Ellonen, H.K. (2008). Online satisfaction, trust and loyalty, and the impact of the offline parent brand. *Journal of Product & Brand Management* 17(6), 403-413.
- Judd, C.M. and Kenny, D.A. (1981). Process analysis: estimating mediation in treatment evaluations. *Evaluation Review* 5(5), 602-619.
- Kandampully, J. and Suhartanto, D. (2000). Customer loyalty in the hotel industry: the role of image and customer satisfaction. *International Journal of Contemporary Hospitality Management* 12(6), 346-351.
- Kantsperger, R. & Kunz, W. H. (2010). Consumer trust in service companies: a multiple mediating analysis. *Managing Service Quality* 20(1), 4-25.
- Kim, M. R. (2011). *The importance of customer satisfaction and delight on loyalty in the tourism and hospitality industry*. Doctoral dissertation summary. *European Journal of Tourism Research* 4(2), pp. 226-228
- Kotler, P. (2008). *Marketing Management*, 13th ed., Prentice-Hall, Upper Saddle River, NJ.
- Lau, G. & Lee, S. (1999). Consumers' trust in a brand and link to brand loyalty. *Journal of Market Focused Management* 4, 341-370.
- Lockwood, C.M. and Mackinnon, D.P. (1998). *23rd Annual Meeting of SAS Users Group International*, Cary, NC.
- Loureiro, S., & Gonzalez, F. (2008). The importance of quality, satisfaction, trust, and image in relation to rural tourist loyalty. *Journal of Travel & Tourism Marketing* 25(2), 117-136.
- Lee, H., Lee, Y. and Yoo, D. (2000). The determinants of perceived service quality and its relationship with satisfaction. *Journal of Service Marketing* 14, 217-231.
- Luarn, P., & Lin, H.-H. (2003). A customer loyalty model for e-service context. *Journal of Electronic Commerce Research* 4(4), 156-167.
- Lynch, P.D., Kent, R.J. and Srinivasan, S.S. (2001). The global Internet shopper: evidence from shopping tasks in 12 countries. *Journal of Advertising Research* 41 (3), 15- 23.
- Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review* 20(3), 709-734.
- Mackinnon, D.P., Lockwood, C.M., Hoffman, J.M., West, S.G. and Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods* 7(1), 83-104.
- Morgan, R.M. and Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing* 58(3), 20-38.
- Nunnally, J.C. (1970). *Introduction to psychological measurement*. New York: McGraw Hill.
- Pantouvakis, A and Lymperopoulos, K. (2008). Customer satisfaction and loyalty in the eyes of new and repeat customers.

- Managing Service Quality* 18(6), 623-643.
- Parasuraman, A., Zeithaml, V., and Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing* 64(1), 29-40.
- Reichheld, F.F (2003). The one number you need to grow. *Harvard Business Review* 81(12), 485-491.
- Reyes, C. (2012). *The satisfaction of wine tourist: causes and effects. Doctoral dissertation summary. European Journal of Tourism Research* 5(1), 80-83
- Ribbink, D., Van Riel, A.C.R., Liljander, V. & Streukens, S. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality* 14, 446 - 456.
- Ribbink, D., A.C.R. van Riel, and J. Semeijn. (2005). Policy decisions and modal choice: an example from the European Union. *Transportation Journal* 44(1), 33-44.
- Roman, S. and Martin, P.J. (2008). Changes in sales call frequency: a longitudinal examination of the consequences in the supplier-customer relationship. *Industrial Marketing Management*, 37(5), 554-564.
- Rousseau, D.M., Sitkin, S.B., Burt, R.S. & Camerer, C.F. (1998). Not so different after all: a cross-discipline view of trust. *Academy of Management Review*, 23(3), 393-404.
- Rust, R.T. and Oliver, R.L. (1994). Service quality: insights and managerial implications from the frontier. in Rust, R.T. and Oliver, R.L. (Eds), *Service Quality: New Directions in Theory and Practice*, Thousand Oaks, CA: Sage.
- Sahadev, S. & Purani, K. (2008). Modelling the consequences of e-service quality. *Marketing Intelligence & Planning* 26(6), 605-620.
- Sanchez, J., Callarisa, L., Rodriguez, R. and Moliner, M. (2006). Perceived value of the purchase of a tourism product, *Tourism Management*, 27(3), 394- 409.
- San Martin Gutierrez, S. (2000). La relacion confianza-compromiso. Propuesta de un modelo explicativo. *Unpublished thesis*, University of Burgos.
- Shankar, V., Smith, A. K., and Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline encounters. *International Journal of Research in Marketing* 20(2), 153-175.
- Singh, J. & Sirdeshmukh, D. (2000). Agency and trust mechanisms in customer satisfaction and loyalty judgements. *Journal of the Academy of Marketing Science* 28(1), 150-167.
- Sureshchandra, G. S., Rajendran, C. & Anantharaman, R. N. (2003). The relationship between service quality and customer satisfaction – a factor specific approach. *Journal of Service Marketing* 16(4), 363-379.
- Taylor, S., Celuch, K., and Goodwin, S. (2004). The importance of brand equity to customer loyalty. *Journal of Product & Brand Management* 13(4), 217-227.
- Theron, E., Terblanche, N. and Boshoff, C. (2011). The antecedents of trust in business-to-business financial services. *Journal of Business- to- Business Marketing* 18(2), 188-213.
- Ting, D.H. (2004). Service quality and satisfaction perceptions: curvilinear and interaction effect. *International Journal of Bank Marketing* 22(6), 407-420.
- Tourism Malaysia Annual Report*. (2011), pp. 23.
- Um, S., Chon, K. and Ro, Y. (2006). Antecedents of revisit intention. *Annals of Tourism Research* 33(4), 1141-1158.
- Westbrook, R. and Oliver, R. (1991). The dimensionality of consumption on emotion patterns and consumer satisfaction. *Journal of Consumer Research* 18(1), 84-91.
- Wold, H. (1982). Soft modeling: the basic design and some extensions. In Jöreskog, K.G. and Wold, H.E. (Eds), *Systems under indirect observation: causality, structure, prediction*. North-Holland Publishing Company, Amsterdam.
- Woodside, A.G., Frey, L. L, Daly, R. T (1989). Linking service quality, customer satisfaction, and behavioral intention. *Journal of Health Care Marketing* 9, 5-17.

- Wolfenbarger, M.F. and Gilly, M.C. (2001). Shopping online for freedom, control and fun. *California Management Review* 43(2), 34-54.
- Yeh, Y.S. and Li, Y.-M. (2009). Building trust in m-commerce: contributions from quality and satisfaction. *Online Information Review* 33 (6), 1066-1086.
- Yuan, J. and Jang, S. (2008). The effects of quality and satisfaction on awareness and behavioral intentions: exploring the role of a wine festival. *Journal of Travel Research* 46, 279-288.
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we don't know. *Journal of the Academy of Marketing Science* 28(1), 67-85.
- Zeithaml, V. A., Berry, L. L. and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing* 60(1), 31-46.
- Zeithaml, V. A., and Bitner, M. J. (2008) *Services marketing*. New York: McGraw- Hill.
-